

### REMARKS

This responds to the Office Action dated September 27, 2006.

Claim 1 is currently amended. Claims 1-14 and 70-75 remain pending in this application.

#### §103 Rejection of the Claims

Claims 1-4, 7-12, 70-73 and 75 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dennis et al. (U.S. Patent No. 6,114,164, herein "Dennis") in view of Kofidis et al. (Journal of Thoracic and Cardio. Surg., herein "Kofidis") and Farb et al. (U.S. Patent No. 6,048,722, herein "Farb").

Claims 5, 6, 13, 14 and 74 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dennis in view of Kofidis and Farb taken further in view of Terracio et al. (In Vitro Cell. And Develop. Bio.).

#### *Claim 1*

Claim 1 has been amended to more clearly describe the recited subject matter.

Applicant respectfully traverses the rejection and submits that the Office Action does not set forth a *prima facie* case of obviousness because the cited portions of Dennis, Kofidis, and Farb, each alone or in combination, do not provide the subject matter recited in claim 1. For example, Applicant is unable to find in the cited portions of Dennis, Kofidis, and Farb, individually or in combination, among other things, a teaching or suggestion of a cardiac electrical stimulator adapted to create cardiac electrical conditions in a culturing medium, the cardiac electrical conditions simulating electrical conditions in the myocardium that result in cardiac contraction, and a myocardial stress simulator adapted to create a mechanical stress upon the cells, the mechanical stress simulating a tension applied upon cardiac muscle cells in the myocardium, as recited in claim 1.

The Office Action states that Dennis "discloses ... an electrical stimulator (14) ... a stress simulator (16, 18, 26, 30, 40) ...." However, Applicant is unable to find in Dennis that the "electrical stimulator (14)" creates the cardiac electrical conditions as recited in claim 1, or that the "stress simulator (16, 18, 26, 30, 40)" creates the mechanical stress as recited in claim 1.

Applicant notes that in rejecting claims 3, 4, and 70, the Office Action states that “in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to modify the electrical stimulation system to provide any of the known electrical stimulations that muscles cells are exposed to in vivo”. Applicant respectfully traverses this assertion and submits that Applicant’s specification includes the “showing of criticality” (see, e.g., Application, page 29, line 8 – page 33, line 27).

Applicant respectfully requests reconsideration and allowance of claim 1.

*Claims 2-14 and 70-75*

Applicant respectfully traverses the rejection. Claims 2-14 and 70-75 are dependent on claim 1, which is believed to be allowable for at least the reasons set forth above. Therefore, the discussion above for claim 1 is incorporated herein to support the patentability of claims 2-14 and 70-75.

Applicant respectfully requests reconsideration and allowance of claim 2-14 and 70-75.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6965 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

STEVEN D. GIROUARD ET AL.

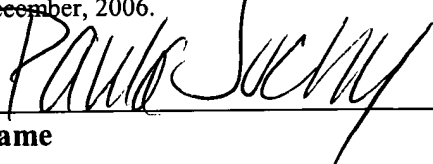
By their Representatives,

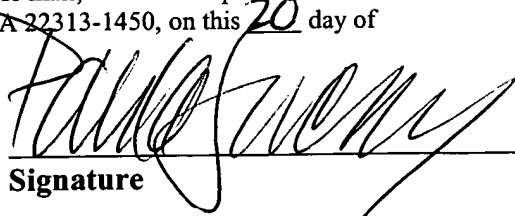
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 373-6965

Date 12-20-2006

By   
Zhengnian Tang  
Reg. No. 55,666

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 20 day of December, 2006.

  
Name

  
Signature